

FINAL REJECTION

Drawings

1. The drawings were received on 1/19/2010. These drawings are NOT ACCEPTED.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 17. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Objections

3. Claim 25 is objected to under 37 CFR 1.75(c), as being of improper dependent form for failing to further limit the subject matter of a previous claim. Applicant is required to cancel the claim(s), or amend the claim(s) to place the claim(s) in proper dependent form, or rewrite the claim(s) in independent form. The claim contains limitations that are specific only the material to be worked upon by the claimed

apparatus. Limitations relating to the material to be worked upon by the apparatus do not further limit apparatus claims. MPEP 2115.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claim 28 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. The applicant does not have support to claim "wherein the driving belt comprise plural driving belts, and said pulley comprises plural drive pulleys" as currently required by the claim. The specification as originally written does not disclose an apparatus wherein a single belt and pulley comprise plural belts and pulleys.

6. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

7. Claim 28 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. It is not clear how a single belt and a single pulley can further

comprise multiple belts and multiple pulleys. It is recommended that the applicant amend the claim as follows: “~~wherein said driving belt further comprising~~ plural driving belts; and ~~said drive pulley comprises~~ plural drive pulleys, said plurality of wheels being rotated by said plural driving belts and plural drive pulleys, respectively.” Amending the claim as such will over come both 35 U.S.C. 112 rejections set forth above.

Claim Rejections - 35 USC § 103

8. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.
9. Claims 1, 5, 11, 19, 20 and 25-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw in view of Smith and Takahashi et al. (US 4946528).

As to claims 1 and 20 Shaw discloses a unit for applying a material web to the bodies (figure 1); comprising:

a conveyor (figure 1) capable of advancing cylindrical bodies in a longitudinal direction thereof, to, past and away from said unit (figures 1, 2) for supplying a material web to a body, comprising: a first section (three sets of rollers 10) comprising a plurality of wheels 10 for advancing and rotating a cylindrical body; said first section being disposed to displace cylindrical bodies in their longitudinal direction and connect a cylindrical body to an end of preceding cylindrical body (column 1, line 58 - column 2, line 3; column 3, lines 6-36); a second section (rollers 12) comprising a plurality of wheels for advancing and rotating a cylindrical body being connected to the first section

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and operating independently of the first section (column 3, lines 9-13 – independently orientable) and capable of rotating and translating a cylindrical body about its longitudinal axis during applying of a material web, further being capable of providing a web with desired spacing between edges of an applied material web (column 3, lines 67-73; figures). The first section is capable of displacing bodies ahead of the applying unit (see figures) and additionally capable of performing the functional language in the last 4 lines of 1 and 20 (column 3, lines 6-74).

Shaw discloses each section comprising sides with a plurality of wheels disposed on each side. The wheels are obliquely oriented and their orientation can be varied (see above cited text) but it is not clear if the wheels are obliquely inclinable.

Smith discloses an apparatus for conveying cylindrical bodies, and further discloses wheels 63 that are obliquely inclinable and capable of supporting a cylindrical body (figures 3, 6, 5, column 3, line 15 – column 4, line 72). Smith further discloses that it is advantageous to use wheels that are obliquely inclinable because doing so allows the apparatus to accommodate bodies of different diameters (column 5, lines 1-55). At the time the invention was made, it would have been obvious to one of ordinary skill in the art to modify Shaw such that the wheels are obliquely inclinable as taught by Smith above in order to achieve the advantages discussed above.

It is not clear if Shaw and Smith disclose an apparatus further comprising a plurality of trailing wheels which are provided above and along the bodies at the unit for applying the material web and capable of urging the bodies against said plurality of wheels. Takahashi et al. discloses an apparatus for wrapping a sheet on a cylindrical

body, comprising trailing wheels 174 that press the seam formed by the wrapped sheet (column 5, lines 9-14; figure 4). At the time the invention was made it would have been obvious to modify the apparatus of Shaw as modified by Smith such that said apparatus further comprises a plurality of trailing wheels (Takahashi 174) as doing such enables the apparatus to form a good seam (column 5, lines 9-14).

As to claim 5, Shaw in view of Smith discloses that said obliquely inclined wheels regulate the advancement speed of bodies (see above cited text of Smith). As to claim 11, a trailing wheel is disclosed as discussed above. The wheel is capable of performing applicant's functional language.

As to claim 19, Smith discloses the wheel pairs in the first section are obliquely inclinable independently of the wheel pairs in the second section of the conveyor (column 3, lines 76-73). Note that the reference discloses that the cam plate 100 is removable in each section, and another cam plate can be independently placed in each section in order to vary the angle of the wheels. As to claim 25, the modified apparatus above is capable of preforming the functional language of the claim. As to claim 26, the plurality of wheels are capable of regulating the speed of bodies as discussed above, and the unit is capable of applying a web at a joint (figure 4 and discussion of figure 4 of Shaw). As to claim 27, Shaw discloses a plurality of rods 20, the wheels being mounted on arms 16 coupled together and adjustable with the rods (column 2, lines 34-55).

10. Claims 4, 6-8, 22-24 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw, Smith and Takahashi as applied to claims 1 and 20 above, and further in view of Magnusson et al. (US 3664531).

Magnusson discloses an apparatus for conveying cylindrical bodies comprising a drive belt 7 and a drive pulley, wherein said drive belt is capable of rotating an obliquely oriented wheel used to convey a cylindrical bodies, said belt further extending around said pulley (figure). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the apparatus of Shaw as modified by Smith and Takahashi such that the apparatus further comprises a drive belt capable of rotating the modified wheels wherein said belt further extends around a pulley as taught by Magnusson above as doing such enables the speed of the rollers to be varied over a wide range (column 1, lines 33-43).

As to claim 6, one of ordinary skill in the art would have understood to make the wheels in the second section independently inclinable from the wheels in the first section in order to accommodate the increase in diameter of a cylinder as a result of application of said material web to said cylinder. As to claim 7, Shaw discloses a common shaft and Magnusson discloses the wheels on one side are disposed on a common shaft. One of ordinary skill in the art would have understood to use a common shaft on both sides in order to achieve the benefits disclosed by Magnusson. Additionally, the applicant should note that simultaneous rotation of each of the pairs of wheels is critical to the apparatus of Shaw (wheel pairs are simultaneously rotated in order to regulate speed of the bodies) and as such it would have been obvious to one of ordinary skill in the art to interconnect the shafts on each side in the modified apparatus of Shaw such that each pair of wheels can be simultaneously rotated. The wheels on each side of Shaw as modified are synchronously driven and thus one would have

recognized to drive each common shaft with the drive unit of Magnusson synchronously. As to claim 8, Shaw discloses that although the wheels in each section are disposed on a common shaft, the pairs of wheels in the second section must be rotated separately from the pairs of wheels in the first section (column 3, lines 6-13). As such, one of ordinary skill in the art would have recognized that each of the first and second common shafts in each of the respective first and second sections of Shaw as modified by Smith, Takahashi and Magnusson above must be separate in order to permit the pairs of wheels to be rotated at different angles to control the conveying speed in each section. As to claim 22, see the discussion of claims 3 and 4 above. As to claims 23 and 24, see the discussion of claims 5 and 6 above, respectively. As to claim 28, Magnusson discloses plural drive belts 7, plural pulleys 6, wherein said belts and pulleys are capable of rotating the wheels.

11. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Shaw Smith and Takahashi as applied to claim 1 above, and further in view of Roberts (US 6231711)

Shaw discloses that the apparatus is capable of severing an applied web at an end of a body after passage of the unit for applying the material web during conveying-off. Shaw is silent as to the use of a knife to accomplish such (column 4, lines 25-27). At the time the invention was made it would have been obvious to one of ordinary skill in the art to modify the apparatus of Shaw as modified by Smith and Takahashi by adding a knife capable of severing a web as taught by Roberts as doing such will enable the

apparatus to produce a clean, even sever (figure 7; column 8, line 62 – column 9, line 23).

Response to Arguments

12. Applicant's arguments filed 01/19/2010 have been fully considered.

Applicant's arguments presented in section II (A) of the Remarks are moot in light of the new grounds of rejection presented above.

In section II (B), the applicant argues that the references are completely unrelated. This is not accurate. All of the references are directed to an apparatus capable of conveying a cylindrical body and/or applying a sheet to said cylindrical body. The combination of the references teaches the limitations of the claims for the reasons presented in the rejection above.

Conclusion

13. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHRISTOPHER SCHATZ whose telephone number is (571)272-6038. The examiner can normally be reached on Monday through Friday 9 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Crispino can be reached on 571-272-1226. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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